

Amendments to the Specification

Please add the following new heading before paragraph [0002]:

BACKGROUND

Amend paragraph [0004] as follows:

[0004] A software tool for acoustic and other simulations going by the name of “Virtual.Lab” is described at <http://www.lmsintl.com>, accessed on 10/24/2003. Mention is made of the generation of an envelope, which is called “acoustic surface meshing process” there, from a prescribed meshing. An envelope with 5000 surface elements is generated from a meshing of an exemplary drive train with 150,000 finite elements. It is not disclosed how the envelope is generated.

Please add the following new heading before paragraph [0008]:

SUMMARY OF THE INVENTION

Amend paragraph [0008] as follows:

[0008] The invention is based on ~~the-an~~ object of providing a method, which can be carried out with a short computing time, for automatic generation of an envelope that approximates the surface of a design model with a prescribed maximum deviation.

Please delete paragraph [0009].

Please replace paragraph [0017] with the following amended paragraph:

[0017] ~~The refinement according to claim 2 requires One nonlimiting embodiment of the present invention has~~ a particularly short computing time. The cuboid is decomposed such that the shortest edge of each volume element is greater than or equal to the longest edge of each finite element of the prescribed mesh. The decomposition of the cuboid is freely selectable, and the accuracy with which the envelope is to approximate the surface of the design model is prescribed by the requirements of the simulation for which the envelope is being used. Therefore, it is mostly possible for the volume elements of the cuboid to have longer edges and the surface

elements of the mesh of the design model.

Please replace paragraph [0018] with the following amended paragraph:

[0018] In this nonlimiting embodiment of the present invention, Checking checking whether a finite element of the mesh and a volume element of the cuboid overlap or not is carried out in a particularly simple way ~~by means of the refinement according to claim 2~~. A check is made as to whether at least one node of the finite element lies in the volume element. If such a node is found, the check is aborted, and it is decided that the volume element overlaps with the finite element. If no node of the finite element lies in the volume element, then neither can any other point lie in the volume element. This follows from the refinement that the edges of the volume element are longer than those of the finite element. Because no other point of the finite element lies in the volume element, there is no overlap between finite element and volume element. Because only the nodes, and no other points, are being examined, particularly little computing time is required.

Please add the following new heading before paragraph [0019]:

BRIEF DESCRIPTION OF THE DRAWINGS

Please add the following new heading before paragraph [0026]:

DETAILED DESCRIPTION

Amend paragraph [0059] as follows:

[0059] After the filling-up process, a mesh of a solid three-dimensional body is present that comprises volume elements of the cuboid. Those bounding surfaces of this mesh are determined that bound this body from the outside. A surface model that is a meshing of the surface with the aid of surface elements is preferably produced to this end from the volume model that is the meshing of the solid body with the aid of volume elements. This step is carried out, for example, with the aid of a pre-processor for finite element tools. The first step is for a description of the meshing of the body which comprises volume elements to be stored in a file, for example in the “NASTRAN Bulk Data” data format. The “MEDINA” pre-processor is able to input a mesh from a file when the latter is present in a standardized data format, for example in NASTRAN

Bulk Data. A description of MEDINA is available at http://www.c3pdm.com/des/products/medina/documentation/medina-DINA4_e.pdf, accessed on 11/27/2003. MEDINA has a functionality for producing a surface model from a volume model. This surface model is the envelope being sought.

Please amend the heading on top of page 15 with the following amended heading:

~~Patent claims~~ WHAT IS CLAIMED IS: